

IN THE CLAIMS:

Please cancel claims 2-4, 9-11, 13-14, 20, 22, 27-29, 31-34, 37-38, and amend claims 1, 5-8, 12, 15-19, 21, 23-26, 30, 35-36, and 39-40 as follows:

1. (Currently Amended) A treatment apparatus for excrement comprising

a reactor basin for containing sawdust ~~the raw material~~ and excrement, provided with at least two concave parts having curved profile on the bottom;

a temperature control means for maintaining the temperature within said reactor basin at a predetermined range, and

at least two mixing devices for mixing the sawdust ~~raw material~~ and excrement, matched with each concave parts, and spaced apart from each other, each of which respectively has

a rotation shaft, and

a helical blade stirrer, provided on said rotation shaft by a plurality of spokes and divided into two parts, helical directions of which are reverse, wherein said helical blade stirrers of the mixing devices are overlapped partially.

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Currently Amended) A The treatment apparatus for excrement of claim 41, wherein a protuberant intersection is formed at a height which is lower than that of the rotation shaft after said two concave parts in the bottom of said basin ~~being overlapped, is are~~ connected. ~~the height of which is lower than that of the rotation shaft of the mixing device.~~

6. (Currently Amended) A The treatment apparatus for excrement of claim 5, wherein the curves of the concave parts are substantively spaced evenly with said mixing device.

7. (Currently Amended) A The treatment apparatus for excrement of claim 6, wherein pluvimixing rings are respectively provided at outer ~~side~~ sides of each helical blade stirrer, on which a plurality of blocks for loosening are provided.

8. (Currently Amended) A The treatment apparatus of claim 1, wherein ~~said reactor basin is covered by a top plate~~ is provided to cover said reactor basin, having ~~, on which a drop inlet is provided.~~

a drop inlet;

a urinary inlet, spaced apart from the drop inlet, and

a conduit, the inlet of which is communicated with said urinary inlet and the outlet of which is adjacent to said drop inlet.

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Currently Amended) A bio-toilet, being divided into two spaces by a floor, wherein the space under the floor is provided with

a tank, the top plate of which having ~~at least one~~ a drop inlet and a urinary inlet, spaced apart from the drop inlet;

a reactor basin for containing sawdust ~~the raw material~~ and excrement, provided with at least two concave parts having curved profile on the bottom;

a temperature control means for maintaining the temperature within said reactor basin at a predetermined range, provided with

a heating plate, disposed on the outer surface of the reaction basin, and

a insulation layer, covered the heating plate; and

at least two mixing devices for mixing the ~~sawdust raw material~~ and excrement, matched with each concave parts, and spaced apart each other, each of which respectively has

a rotation shaft, and

a helical blade stirrer, provided on said rotation shaft by a plurality of spokes and divided into two parts, helical directions of which are reverse, wherein said helical blade stirrers of the mixing devices are overlapped partially;

a driving means provided outside the tank for driving the two mixing devices; and

a control unit.

13. (Cancelled)

14. (Cancelled)

15. (Currently Amended)      A The bio-toilet of claim 12, wherein pluvimixing rings are respectively provided at outer ~~side~~ sides of each helical blade stirrer, on which a plurality of blocks for loosening are provided.

16. (Currently Amended) A The bio-toilet of claim 15, wherein a protuberant intersection is formed at a height which is lower than that of the rotation shaft after said two concave parts in the bottom are connected. ~~of said basin being overlapped,~~  
~~the height of which is lower than that of the rotation shaft of the mixing device.~~

17. (Currently Amended) A The bio-toilet of claim 16, wherein, wherein the curves of the concave parts are substantively spaced evenly with said mixing device.

18. (Currently Amended) A The bio-toilet of claim 17, wherein, wherein the distance between the mixing device and the concave parts is about 1cm-3cm.

19. (Currently Amended) A The bio-toilet of claim 18, wherein a support is provided on the bottom plate of the tank between the two concave parts for supporting the protuberant intersection.

20. (Cancelled)

21. (Currently Amended) A The bio-toilet of claim ~~20~~ 19, wherein the temperature control means further includes a holder for holding the insulation layer, one

end of which is secured to the support and the other end is secured to the tank by a spring hook.

22. (Cancelled)

23. (Currently Amended) A The bio-toilet of claim 22 12, wherein a conduit is also provided within the tank, the inlet of which is communicated with said urinary inlet and the outlet of which is adjacent to said drop inlet.

24. (Currently Amended) —A The bio-toilet of claim 23, wherein a plurality of dispensing holes is provided at the bottom of the conduit.

25. (Currently Amended) A The bio-toilet of claim 24, wherein the diameter of the dispensing holes increases gradually as they approach the outlet.

26. (Currently Amended) A The bio-toilet of claim ~~13~~ 12, wherein the top plate of the tank is assembled with the side plate of the tank in a removable manner with a heat-insulating element at the juncture between the top plate and the side plate.

27. (Cancelled)

28. (Cancelled)

29. (Cancelled)

30. (Currently Amended) A treatment apparatus for decomposing excrement by using the ~~treatment apparatus~~ bio-toilet of claim 12 ~~4~~, comprising the steps of

providing said reactor basin for containing ~~the raw material~~ sawdust and excrement, provided with said at least two concave parts;

providing said temperature control means for maintaining the temperature within the reactor basin at a predetermined range; and

providing said at least two mixing devices for mixing the raw material and excrement, matched with each concave part, and spaced apart from each other, each of which respectively has

a rotation shaft, and

a helical blade stirrer, provided on said rotation shaft by a plurality of spokes and divided into two parts, helical directions of which are reverse, wherein said helical blade stirrers of the mixing devices are overlapped partially.

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)

34. (Cancelled)

35. (Currently Amended)     A The method of claim ~~34~~ 30, wherein the step of driving the mixing devices comprises driving the mixing devices in a reverse direction when the mixing devices complete one turn of rotation so as to sufficiently stir the excrement.

36. (Currently Amended)     A The method of claim 35, wherein one turn of rotation for the mixing devices is completed by driving the mixing devices several times.

37. (Cancelled)

38. (Cancelled)



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39. (Currently Amended) The method of claim ~~37~~36, further comprising the step of driving the mixing devices when ~~the treatment apparatus comes into use~~ somebody enters into the bio-toilet.

40. (Currently Amended) The method of claim ~~40~~39, further comprising the step of driving the mixing devices after the usage for the treatment apparatus is completed.